

this Invention. The Numbers given will serve to examine the Truth of what I have asserted concerning the Motion of the Mercury: And from them one may make Tables to serve to proportion these Engines for raising any Quantity of Water to any Height, according to the Power one has to apply.

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III. *Part of a Letter from Mr. Peter Derante, Chirurgeon in Waterford, to Mr. John Douglas, Chirurgeon, F. R. S concerning the coming off of the Scapula and Head of the Os Humeri, upon a Mortification.*

ON the 5th of November, 1713, One John Fletcher, on board the *Neptune* of *Liverpool*, had the Misfortune to break the *Radius* and *Ulna* (of his left Arm) and their Ends burst thro' the Skin. He was immediately dress'd by the Surgeon of the Ship with the common Astringents and Bandage; about five or six Days afterwards I was sent for to go down to *Passage* to see this Man. When I came there, I found his Surgeon along with him, who told me, That the Man would do very well, because he was in no pain at all; however, I desir'd him to take off the Dressings, and let me look on't. Which being done, I found it was black and insensible from his Fingers to his Shoulder, and therefore advis'd the Extirpation of it immediately, but his Surgeon oppos'd it; however, I scarified it in several Places, and very deep, and then apply'd a warm Dressing. Next Day the Ship put to Sea, and the poor

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Creature

Creature was sent to *Waterford*, and committed to my Care. As soon as I could get my *Apparatus* ready, I cut off his Arm (in presence of Dr. *Renet*, and Mr. *Carr* an Apothecary) as high as possible; then I cauterized the Stump, which was perfectly mortified as high as the *Acromion*. Next Day I perceiv'd the Mortification spreading toward the lower Angle of the *Scapula*, then I rubb'd the Edges of the Mortification with armed Probes dipt in a So'lution of *Argentum Vivum* in *Aq. Fort.* which compleatly answer'd my Intention; for from that time the Mortification spread no further; next Dressing I scarified and cauterized all the mortified part, and dress'd it *S. A.* I continued this Method for seventeen or eighteen Days, and then the Sloughs began to separate and cast off daily; some time afterwards the *Scapula* began to part from the *Os Humeri* and *Clavicula*, and at length came out whole; I was then put to it what to do about the stump of the *Os Humeri*, which still adhered to the *Pectoralis* and *Lattissimus Dorsi*; but in a little time it also separated and came away, without any Hemorrhage succeeding, which I expected. I was afterwards obliged to cut off part of the *Clavicula*, before I could cicatrize the Wound, which was soon afterwards accomplished. I have the *Scapula* and Head of the *Os Humeri* still in my Custody, and have shewn them to many Surgeons and Physicians. All *Waterford* is Witness of this Fact, and they called him ever afterwards *Three Quarters of a Man*.

*I am, &c.*

*Waterford, Jan.*

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*Pet. Derante.*